

(12) UK Patent Application (19) GB (11) 2 047 491 A

(21) Application No 7939074

(22) Date of filing
12 Nov 1979

(30) Priority data

(31) 26276

(32) 2 Apr 1979

(33) United States of America
(US)

(43) Application published
26 Nov 1980

(51) INT CL³ H03B 5/32

(52) Domestic classification
H3T 1G3X 2B9 2C 3H
3V JAD

(56) Documents cited

GB 1453538

GB 1041338

GB 1037195

GB 835971

GB 748025

GB 669863

GB 594028

(58) Field of search

H3F

H3T

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(54) Oscillator mode suppression
apparatus having bandpass effect

(57) An apparatus utilizing the basic
oscillation characteristics of the Col-
pitts or Pierce and Hartley oscillator
configurations. In this embodiment
the basic shunt reactive shunt arms
(14, 16) are replaced with a se-
lected pair of tank circuits or one of
the shunt arms with a series or
parallel tank circuit. These tank cir-

cuits are tuned such that the sign of
their effective reactances are the
same between the range of reso-
nant frequencies of the individual
tank circuits or of the series and
parallel resonant frequencies of the
series-parallel tank. When this oc-
curs and their sign differs from the
sign of the effective reactance of
the series reactive element, there is
an 180° signal phase shift in the
feedback loop, and therefore oscilla-
tion. Resonator 12 is a crystal.
Other examples of the shunt arms
are described Figs. 3a-3e.

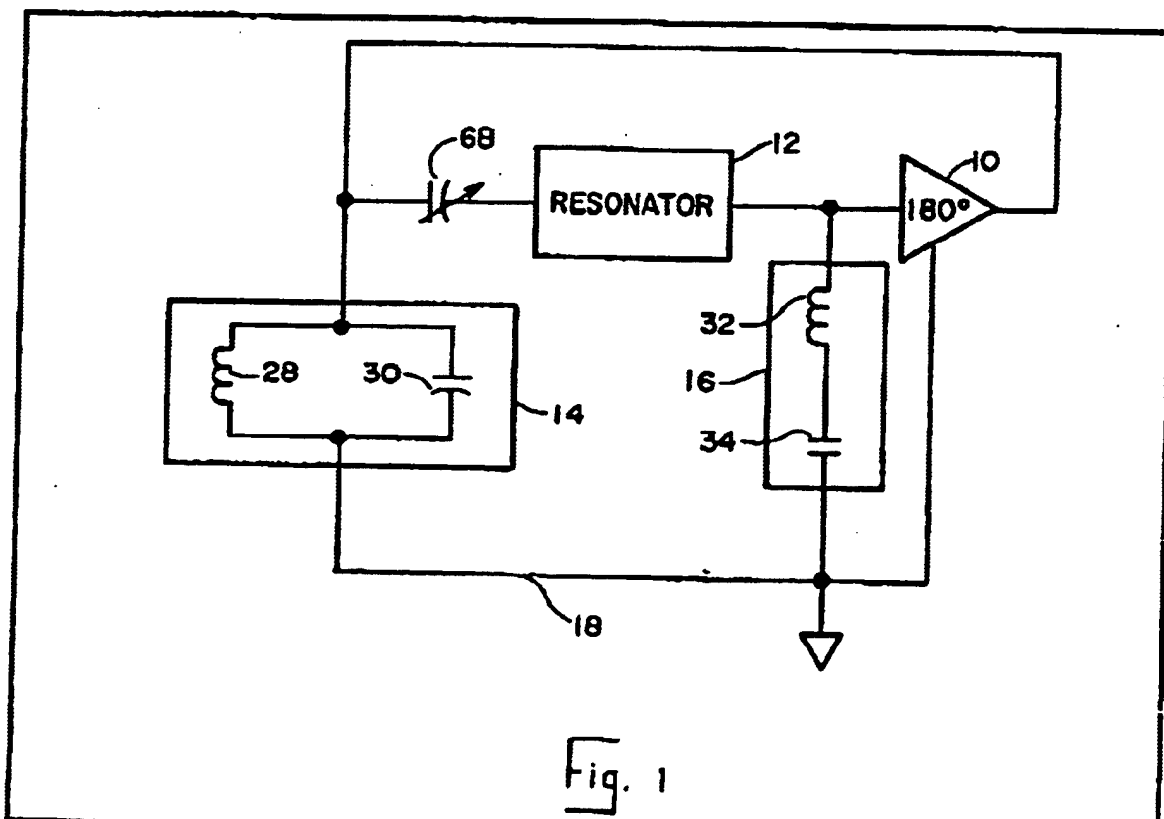


Fig. 1

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